

Serial No.: 09/378,196

Attorney Docket No.: 99P7442US01

REMARKS

Upon entry of the instant Amendment, claims 1-14 are pending. Claims 1, 5, and 8 have been amended, and claim 14 has been added, to more particularly point out Applicants' invention.

Claims 1-7 were rejected under 35 U.S.C. §103 as being unpatentable over Roy, U.S. Patent No. 6,081,513 ("Roy") in view of Riddle, U.S. Patent No. 6,175,856 ("Riddle"). Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Roy or Riddle, either singly or in combination. As discussed in the Specification, one aspect of the present invention relates to a bandwidth adjustment server or bandwidth allocation server (BWAS) which monitors system bandwidth usage and directs each of the user terminals to adjust their coding algorithms based on system bandwidth usage. If system bandwidth usage is high, the BWAS requires the user terminals to employ a less bandwidth-intense coding algorithm; similarly, when system bandwidth usage is low, the BWAS will allow the user terminals to employ higher bandwidth-use coding algorithms. Thus, in response to signals from the BWAS, the client terminals adjust their coding algorithms. The direction can be on a network-wide level and not necessarily restricted to entities currently in a conference another entity wishes to join.

In certain embodiments of the present invention, the BWAS sends instructions to telephony or user devices that they need to adjust their coding hierarchies when attempting to place a call. The call can be made or negotiated using the adjusted hierarchy. Thus, claim 1 has been amended to recite "wherein said one or more renegotiation signals include one or more signals instructing one or more telephony devices to adjust a coding hierarchy;" claim 5 has been amended to recite "wherein said signals from said bandwidth allocation server include signals to adjust a coding hierarchy."

In contrast, neither Roy nor Riddle appear to relate to adjusting a coding or bandwidth hierarchy, as recited in the claims at issue. Advantageously, the ability to receive commands to adjust the hierarchy can allow negotiations to occur on a device-by-device basis.

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Furthermore, as discussed in response to previous Official Actions, Roy provides a bridge resource manager (BRM) that is used to establish coding based on QoS considerations when a conference is begun. Roy, however, does not appear to provide a server that causes a change in codec speed or re-negotiating codecs either as the conference is ongoing or for other entities not involved in the conference once initial codec choices have been made. Thus, the bridge "execute[s] the stated algorithm, assess[es] what type and quantity of resources are needed. . . and reserve[s] the necessary resources to maintain the desired levels of quality of service for the multimedia conference call." (Col. 5, lines 43-49). Once a request has been made, Roy provides for execution of a "multimedia performance and resource analysis algorithm" that determines whether "there is sufficient network and bridge resources to (1) provide a call that satisfies all requirements of the conference call, (2) provide a call in which some requirements can be partially met while others are fully met, qualifying the conference call to operate in a 'degraded mode, or (3) provide an indication that the call has been rejected due to the unavailability of critical resources." (Col. 7, lines 55-65). This all occurs "*before acceptance of the conference call.*" (Col. 9, lines 2-3).

While Roy refers to "pre-empting resources devoted to lower priority services," these relate, for example, to buffer availability, etc., and do not appear to relate to changing codec speed, as generally recited in the claims at issue. Instead, Roy discusses "priority 1" services, such as 'guaranteed service' and Priority 2, a 'best effort' service. When a request for a conference call is made, Roy determines whether there are Priority 2 services that can be "pre-empted," i.e., whether certain capacity of *the best effort service* can be used without degrading the existing service or the requested call. If not, then the call cannot be made. If the call can be made, the requesting entity will ask for re-negotiation of the call setup *for the new call* based on the new "degraded" priority 2 level.

Once the call is set up (i.e., the "necessary resources are available"), "the quality of service parameters for the conference call will be maintained after acceptance of the call." Col. 2, lines 30-33. Neither the codec nor the priority levels for an existing call appear to be renegotiated.

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Contrary to the suggestion in the Official Action, Roy's reference to "dynamically allocating bandwidth" does not appear to relate to increasing or decreasing bandwidth allocated to a call in progress. Instead, it appears to merely relate to an initial phase of call setup. Furthermore, applicants note that the reference to "dynamically allocating bandwidth" referred to in the Official Action occurs in the "Background" section, in describing circuit-switched networks, which are distinguished from the subject matter of Roy.

In addition, while Roy teaches pre-empting resources devoted to existing calls of lower priority services, Roy does not provide for "changing the coding algorithm" of the lower priority services. Instead, Roy "pre-empts" only that which will not cause the lower priority service to drop below their (lower priority) quality threshold. If the conference call would require the lower quality service to drop below its quality threshold, rather than the lower quality call being renegotiated, the conference call is rejected (See. Col. 19, lines 5-30).

While Riddle is relied on for allegedly teaching codec renegotiation, Riddle appears to merely provide a way for parties starting or joining a *specific* conference to negotiate codec choices for that *specific* conference. Thus, "the exchange of the list. . . occurs . . . during the initiation of the teleconference or upon a new processor joining the teleconference." (Col. 9, lines 5-6). Riddle does not, however, appear to have anything to do with a bandwidth allocation server responsible on a network-wide level for directing client terminals, such as those involved in other calls or conferences, to re-negotiate codec choices, as generally recited in the claims at issue. Indeed, if anything, Riddle appears representative of a problem solved by the present invention, which prevents individual parties to particular conferences from hogging network bandwidth.

As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 8-13 were rejected under 35 U.S.C. 103 as being unpatentable over Riddle in view of Roy. Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Riddle or Roy, either singly or in combination.

Claim 8 has been amended to recite "said signals including instructions to adjust one or more coding hierarchies." As discussed above, both Roy and Riddle relate

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merely to start up or enter into a given teleconference. Neither appears to have anything to do with transmitting renegotiation signals (or coding hierarchy adjustment signals) to other network entities, such as those involved in other calls. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

Claims 5, 7, 8, 10, and 11 have been provisionally rejected under the judicially created doctrine of obviousness type double patenting over claims 15 and 19 of co-pending Application No. 09/238,671. Applicants will consider filing a terminal disclaimer when allowable subject matter is indicated.

Newly added claim 14 recites "wherein said bandwidth allocation server is configured to cause said renegotiation responsive to a modified demand threshold determination, said modified demand being calculated substantially according to the following:

$MD = (D \cdot VLA) / EA$, where MD is modified demand, D is demand (available network bandwidth divided by the number of idle users); VLA is percentage voice load allowed, and EA is percentage of calls expected to be activated."

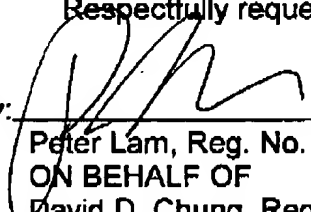
The claim thus specifically recites a demand determination made in an embodiment of the present invention. Such a determination does not appear to be taught, suggested, or implied by either Roy or Riddle. As such, Applicants respectfully submit that this claim, too, is allowable.

For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

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